MARTHA YIP, University of Kentucky

A unifying framework for the ν-Tamari lattice and principal order ideals in Young's lattice

We present a unifying framework in which the ν-Tamari lattice, introduced by Préville-Ratelle and Viennot, and principal order ideals in Young's lattice indexed by lattice paths ν, are realized as the dual graphs of two triangulations of a family of flow polytopes. The first triangulation gives a new geometric realization of the ν-Tamari complex introduced by Ceballos, Padrol and Sarmiento. The second triangulation shows that the h^*-vector of this family of flow polytopes is given by the ν-Narayana numbers, extending a result of Mészáros. This is joint work with von Bell, González D'León, and Mayorga Cetina.